

ASSESSING THE ECONOMIC BENEFITS OF AMERICA'S COASTAL REGIONS

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Although coastal areas comprise one-fifth of the land area of the contiguous 48 states, they account for more than half of the nation's population and housing supply. In 1990, over 133 million Americans lived in the 673 counties along the Atlantic and Pacific Oceans, the Gulf of Mexico, and the Great Lakes. Since 1960, these areas increased by 41 percent. That rate was above the national average—a trend that is expected to continue. About 820,000 new homes are constructed in coastal areas each year. These areas also account for about half of all new industrial, office, retail and recreational building.¹

The public discussion of this growth is too often focused solely on the so-called problems caused by this growth. Coastal growth poses challenges—and sometimes damages—to the environment. The increase of housing units taxes drinking water supplies and sewage systems. Human intervention, mostly through the construction of channels and dams, disrupts the natural sand system, causing sandy beaches to erode. This development not only harms recreational opportunities and decreases local and regional tax revenues, it also undermines the protection that coastal property owners need from storm surges. That in turn raises the issue of flood insurance and disaster relief policies. There are tensions between commercial and recreational fishermen, and an increasing shortage of fish for both interests. The pollution of estuaries and beach waters, as well as the relatively unexplained increase in harmful algal blooms and hypoxia, each take their toll on coastal interests.

Each of these issues, of course, is quite important, and the political process at all levels often deals with them on a one-by-one basis. Should the Federal government support beach nourishment? Should it “subsidize” coastal flood insurance policies? By taking just these two issues alone, we can see symptoms of myopic public policy-making. Let us assume for the sake of discussion that the Flood Insurance Program provides lower-than-market-cost insurance policies for at least certain coastal homeowners. Let us also assume that current proposals to deny Federal flood insurance to certain coastal homeowners with repetitive losses will affect more than a handful of coastal property owners. By

increasing the cost of living for these homeowners, what is gained and what is lost? The public would likely believe that a significant increase in insurance premiums will encourage these homeowners to retreat from the coast. But suppose that we instead invest in repairing and nourishing the protection these homeowners get from sandy beaches. By incurring this cost (which is shared by Federal, State, and local taxpayers), what is gained and lost?

Too often we are able to measure costs quite easily. The Federal Shore Protection program, for example, costs about \$100 million a year in Federal dollars.² What are the benefits of that rather modest expense? While the U.S. Army Corps of Engineers does a benefit-cost analysis in connection with every shore protection project, that analysis suffers from its own myopia. It places its greatest emphasis on the value of the private property that is immediately adjacent to the coastline. It is not reasonable to assume that a healthy beach with natural dunes and vegetation will benefit only that first row of homes and businesses. The homeowners spend money in the region; the hotels attract tourists, who also spend money; local residents who live inland come to the beach for recreation. They, too, spend money. There are a variety of service businesses, from T-shirt vendors to banks, whose existence depends on these expenditures. In addition, there is an environmental benefit derived from renourishing our beaches. Property owners do not retreat from an eroding shoreline. They build seawalls and other hard structures to protect their property. These hard structures, which often exacerbate beach erosion, provide an unfriendly home to the birds and turtles that nest in the sand.

If we know the costs of the Federal Shore Protection Program, what then, are its benefits? If we can also state with a fair certainty what it costs to “subsidize” the flood insurance policies of coastal residents, what is our measurement of the benefits derived from that “subsidy”? It is regrettable that we cannot answer the benefits side of the equation with the same certitude as the cost side. As long as we cannot quantify the benefits, those who make policies affecting coastal regions must make their decisions in a factual vacuum. In addition, the public is subjected

to the repeated carping of those who mistakenly believe that some form of forced retreat from the coast will return our coastal regions to their “natural” condition. There is every reason for each of us to support policies that result in sustainable coastal growth and which encourage –if not require– that responsible economic and environmental decisions be made along each of our coasts and in each of our coastal communities. However, even if the 54 percent of our population that lives along the coast retreated inland, it would not bring the coast back to the conditions that existed prior to European settlement 200-plus years ago, or the Industrial Revolution over a century ago.

We are, of course, not lacking in hard information about the benefits derived from our coastal regions. The immense natural resources of these regions are responsible for a significant amount of commercial activity. In 1993, the U.S. commercial fishing industry produced and marketed products valued at \$10.8 billion. Saltwater recreational anglers generated \$15 billion from 64 million fishing trips. In 1990, 2.15 billion tons of cargo valued at over \$500 billion moved through the nation’s 190 seaports. ³

We also know a good deal about the attraction that coastal regions have for tourists. In 1997, total tourism expenditures in U.S. coastal congressional districts was over \$185 billion, while tourism payroll was almost \$50 billion and tourism jobs in these districts were over 2.7 million. ⁴ Beaches and coastal regions are not only the Number One destination for domestic tourists, they also are the top destination for foreign tourists. Each year, the Federal government receives about \$4 billion in taxes from foreign tourists, while state and local governments receive another \$3.5 billion. Foreign tourists spent over \$11 billion in Florida in 1992, \$2 billion of that amount in the Miami Beach area alone. This Florida spending generates over \$750 million in Federal tax revenues, more than the total received by the State and local governments combined. Focusing on Miami Beach alone, annual Federal tax revenues from foreign tourists (\$2 billion) are about 17 times more than the Federal government spent on the entire Federal Shore Protection program from 1950 to 1993 (\$34 million in 1993 dollars). If the Federal share of beach nourishment averages about \$10 million a year, the Federal government collects about 75 times more in taxes from foreign tourists in Florida than it spends restoring that State’s beaches. ⁵

Foreign tourism to the United States in 1995 was expected to generate a trade surplus of \$26 billion, compared to a surplus of \$17 billion in 1992 and a deficit of \$7 billion in 1986. During the 1995 to 2000 period, the number of tourism-related jobs is expected to double. ⁶

When it comes to beach spending, we have a large amount of additional benefit-related information. On the one hand, for example, we know that 55 percent of the visitors to Broward County, Florida (the Ft. Lauderdale area) would not come if there were no beaches. Another 27 percent would come less often. Out-of-state visitors generate \$350 million in economic benefits to that county annually. In addition, Broward’s beaches generate county property tax collections in excess of \$28 million a year and create nearly 18,000 jobs. ⁷

From discussing the State and county levels, let us spend a moment looking at the impact of beach nourishment at the local level. In 1993, the Federal government spent \$5.5 million, while the State and local governments spent another \$4.3 million, nourishing 5 miles of beach on Anna Maria Island

(which lies on the West Coast of Florida between Tampa and Sarasota). That beach restoration added \$67.5 million to local property values, and boosted the island’s economy by \$25.9 million and 711 jobs. Property values for areas of the county that are

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away from the beach restoration area increased by \$32.1 million, mostly due to increased beach recreational opportunities. ⁸

Moving to the West Coast, California’s beaches experienced more visitor attendance days in 1996 than all of the State’s other tourist attractions – including Disneyland– combined. Beach tourism spending contributes over \$10 billion in direct benefits to the State and another \$17 billion in indirect benefits–almost 3 percent of the total economic activity in the State. Beach tourism creates a half million California jobs and \$1 billion in state sales, income, and gasoline tax revenues. ⁹

Now, going from the Nation’s largest State to one of its smallest, Delaware receives 5.1 million “person

trips” each year in a State where just over 21,000 people actually live in beach communities and another 373,000 people live within day-use travel distance. Beach tourism generates \$173.2 million in expenditures each year. Just as significant, beach erosion results in an estimated loss of over 471,000 visitor days a year, a figure which is estimated to increase to over 516,000 after five years. During that 5-year period, beach erosion will cost an estimated \$30.2 million in consumer expenditures, the loss of 625 beach area jobs, and the reduction of wages and salaries by \$11.5 million. Business profits will drop by \$1.6 million and State and local tax revenues will decrease by \$2.3 million. Finally, beach erosion will reduce beach area property values by nearly \$43 million over the five-year period.¹⁰

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Our nation's estuaries are also major tourist and recreational attractions. For example, nature tourism in Corpus Christi, Texas is the fastest growing component of a tourism sector that generates \$23 billion annually. Recreational fishing provides aggregate net benefits to the area of \$83 million, including \$37 million per year in state and local taxes. The economic impact of water quality-dependent uses in Long Island Sound is estimated at more than \$5 billion annually. Commercial and recreational fishing contributed more than \$1.2 billion of the total, while beach going has a direct benefit of more than \$800 million annually.¹¹

Let us conclude this partial review of the economic impact of our coastal regions with data from the U.S. Environmental Protection Agency. America's coastal waters support 28.3 million jobs and generate \$54 billion in goods and services every year. The coastal recreation and tourism industry is the second largest employer in the nation, serving the 180 million Americans who visit our coasts every year. The commercial fish and shellfish industry contributes \$45 billion to the economy every year, and recreational fishing contributes \$30 billion.¹²

It is critical that we develop a comprehensive set of data on all of the benefits derived from America's coastal regions. As stated above, policy makers cannot make sound decisions without this knowl-

edge. 1998 was the Year of the Ocean. The year may be finished, but our work has just begun. A critical and somewhat overlooked component of the activities related to the Year of the Ocean is our coastline. What we do in that one-fifth of our land that comprises coastal America has a significant impact on our oceans, and vice versa. The fact is that taken from a comprehensive point of view, we in the United States need to take major steps to improve our coastal management practices and policies. We must restore and maintain our eroding beaches, improve the quality of beach water and coastal community drinking water, protect and enhance coastal wildlife, promote policies that mitigate coastal hazards, and in general improve the quality of our coastal living environment.

Since our inception in 1996, the American Coastal Coalition has supported the full assessment of the economic and ecological benefits of beach nourishment. Today, I announce our support for a major study by the National Academy of Sciences of the economic and ecological benefits of our nation's coastal regions.

Notes

1 Data cited are from NOAA. The H. John Heinz Center for Science, the Economy, and the Environment found in November 1997 that 112 million people live in counties entirely or substantially within 50 miles of the coast.

2 Over the past 45 years, the average annual Federal shore protection outlay is actually less than \$50 million. It is only in the last three to four fiscal years that it has reached \$80 million to \$110 million.

3 Data from Heinz Center report, op. cit. In addition, in 1996, saltwater recreational fishermen spent \$8.7 billion on a variety of items to participate in their fishing. These dollars had a ripple effect of \$25.1 billion, supported the equivalent of 288,000 full-time jobs, and generated \$1.24 billion in State and Federal taxes, according to a 1998 study by the American Sportfishing Association.

4 Data from American Coastal Coalition analysis of a June 1998 study by the Travel Industry Association of America.

- 5 Data derived from an article by Dr. James R. Houston, published in the *American Shore and Beach Preservation Journal*.
- 6 See “Coastal Tourism and Recreation” by Biliana Cicin-Sain and Robert W. Knecht, published in *Year of the Ocean Discussion Papers*, March 1998.
- 7 Data from 1997 study by Broward County Department of Natural Resource Protection.
- 8 Data based on a February 1997 study by Regional Research Associates, Inc., Boca Raton, FL.
- 9 Data from a May 1997 study by the University of San Francisco’s Public Research Institute.
- 10 March 1998 study by Jack Faucett Associates (Bethesda, MD) in cooperation with independent consultants Linda Kent (Bethesda, MD) and Christopher Jones (Charlottesville, VA) for the Delaware Department of Natural Resources and Environmental Control.
- 11 Cicin-Sain and Knecht, “Coastal Tourism and Recreation” in *Year of the Ocean Discussion Papers*.
- 12 July 9, 1998 testimony of Robert H. Wayland, II, Director of EPA’s Office of Water, before the Senate Environment and Public Works Committee.